
Economic Impact of Corona Virus Pandemic and the usefulness of Digital Marketing

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ABSTRACT

Novel Corona Virus or COVID 19 is a virus that affects the respiratory system and creates serious complications in the human body. To check the community spread of this virus many countries like China, Italy, Spain, USA and India resorted to partial and complete lockdown thus leading to a standstill in business operations. As physical movement of customers and sellers got restricted, the alternative was to use electronic commerce or E-Channels to fulfill their needs. This research paper is an endeavor to understand the economic impact of lockdown due to Corona Virus impact and whether the digital economy has succeeded in creating an alternative platform to keep the business transactions going

Keywords: *Corona Virus, Economic Impact, Digital Marketing*

1. INTRODUCTION

Outbreaks, Epidemics and Pandemics have been occurring throughout the last hundred years. The Spanish Flu, which lasted for two years between 1918 to 1920, infected 500 million people and killed 17 million people [1] In 1957, we had a pandemic caused by 'Asian Flu', caused by the influenza virus H2N2. This originated in Singapore and then spread to Hong Kong and United States. From 1957 to 1958, this influenza virus killed 116,000 people in USA and 1.1 million people across the World[2]. In 1997, there was an outbreak of 'Bird Flu' in Hong Kong that was caused by the influenza virus H5N1. This spread from chickens to human beings and caused asymptomatic infection to fatal pneumonitis and multiple organ failure[3]. As per WHO records, this virus had infected 598 humans from 1997 to 2003 and killed 352 people.

In 2003, we had another deadly outbreak called SARS (Severe Acute Respiratory Syndrome). This originated in China and the Chinese Government was severely criticized for suppressing the information on the outbreak. By the time, the outbreak was publicly announced and acknowledged, the deadly virus had spread across the World causing a pandemic, infecting more than 8000 people and killing more than 800[4]. The next deadly virus called the 'Swine Flu' virus. This originated in Mexico in 2009 and killed 18,000 people across the World[5]

Now we are back again in a SARS like pandemic situation but with far deadly and damaging consequences. This time it is the 'Novel Corona Virus' or the SARS-CoV-2 that is wreaking havoc across the World. With an eerie resemblance to the SARS outbreak of 2003, this one also originated in the Chinese province of Wuhan. By the time the rest of the World came to

know about this outbreak, Wuhan had already recorded 266 cases in 2019. (Source: South China Morning Post, 23rd January, 2020). Things took a turn for the worst with the virus outbreak spreading to Iran, Italy, Spain, UK, USA and 290 countries across the World. Till now, the Novel Corona Virus has infected 7,36,245 and killed 34,866 people (Source of Data: WHO) as on 30th March, 2020, 5 PM. The USA has the highest number of cases at 1,42,793 and Italy has recorded the highest number of deaths 10,779. China, from where this virus originated, has recorded 81,470 Cases and 3,304 deaths. India, which was prompt to announce a lockdown and enforce ‘Social Distancing’ norms, has recorded 1,071 Cases and only 29 deaths till now.

While China has started recovering from the after effects of this deadly virus attack and is returning to normalcy, the pandemic has been causing huge number of deaths in Europe with Italy recording more than 10,000 deaths and Spain recording more than 8,000 deaths. The Queen, Prince Charles, Prime Minister Boris Johnson and Health Minister of United Kingdom are all currently affected by the Corona Virus. World Health Organization (WHO) has classified the Corona Covid 19 Virus outbreak as a ‘Pandemic’ and advised countries to go for ‘Social Distancing’, Quarantine of suspect patients and lockdown of cities like Wuhan which have witnessed major outbreak and spread. There is also a shortage of Doctors, Nurses, beds in hospitals, Ventilators, Masks and Hazmat Suits that is making the containment of the virus more difficult.

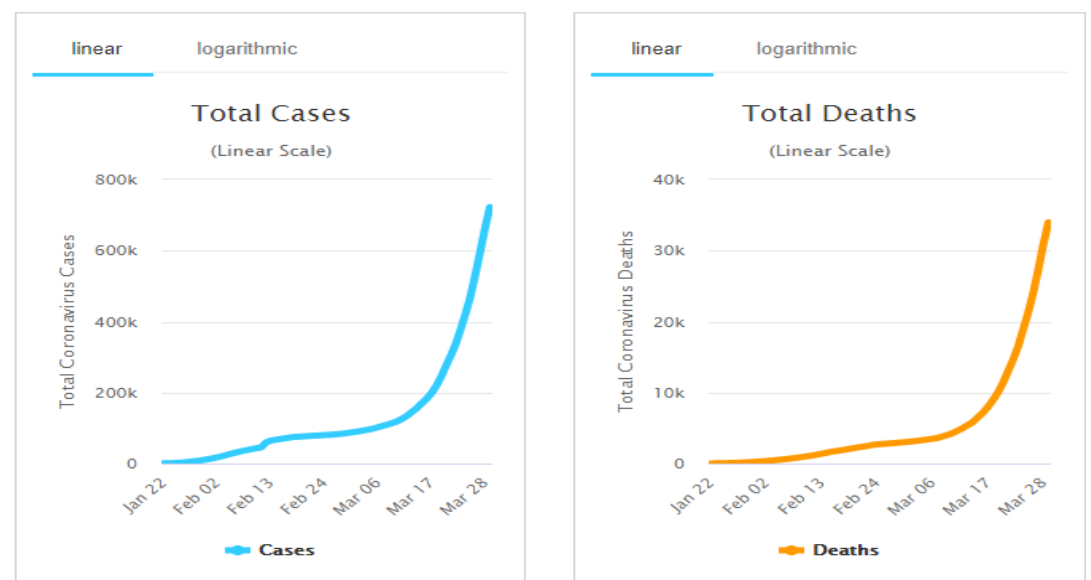


Figure – 1 : Total Cases and Total Deaths due to Novel Corona Virus

Source of Data: www.worldometers.info

2. ECONOMIC IMPACT OF THE CORONA VIRUS

Dun and Bradstreet, in their latest economic forecast has said that the probability of countries going into recession has increased manifold because of the Covid 19 virus outbreak. As per a report given by ICRA, the GDP growth rate in India would drastically fall to 2% in 2020-21. The World Bank has said that the outbreak of the deadly Covid 19 Corona Virus could

actually cut the GDP growth of China into half and push 11 million people from East Asia into poverty. The growth in European Economy is expected to see a dip of 3.4% while USA may see a dip of 4.2% in growth.

The outbreak of the Novel Corona Virus outbreak has caused huge volatility in Stock Markets and Commodity Markets, a huge crash in the price of oil, interrupted the global trade and supply chains, brought down the asset prices and brought the travel and entertainment industry to a virtual standstill. Products flew off the shelf of retailers in many cities as customers resorted to panic buying of groceries.

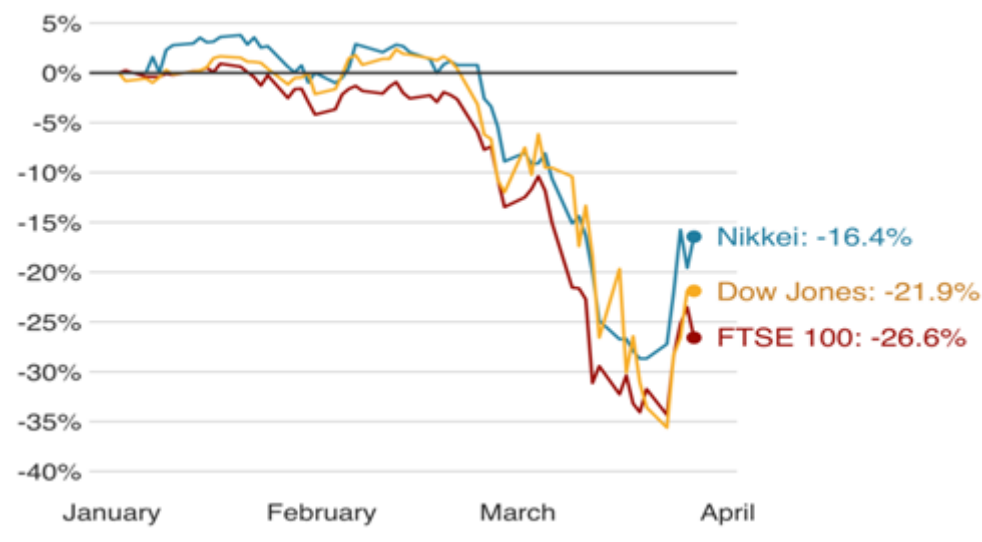


Figure – 2 : Impact of Corona Virus on Stock Markets Source :
Bloomberg

Fitch has downgraded the Banking Sector in India from BB+ to BB. It is feared that Banks will face a liquidity squeeze because of the Corona Virus Pandemic. The Indian Government has already announced that banks should defer collecting EMIs (Equated Monthly Installments) for three months. There is also a fear that there could be large-scale default on loan repayments, especially from the small and medium (SME) sector and retail borrowers from the unorganized sector. This could balloon into a rising NPA (Non Performing Asset) and cause much pain to banks. RBI has estimated that NPAs could touch 10% of total assets of the banks.

The production has also stopped in many factories across the World. The IIP (Index of Industrial Production) in China has seen a downfall of 13.5% in January and February of 2020. The sales of automobiles have also seen a reduction across the World. Maruti Suzuki and Hyundai in India have halted the production of cars and started making ventilators.

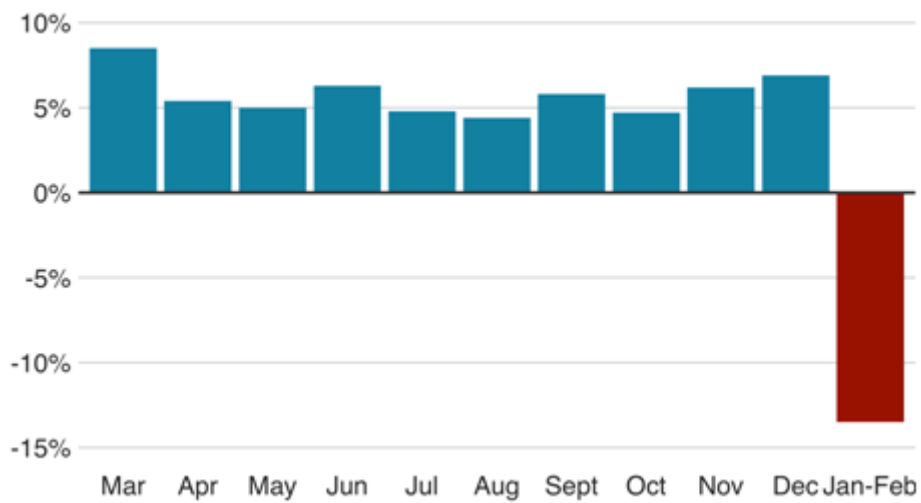


Figure – 3 : Fall in industrial production in China
Source : China National Bureau of Statistics

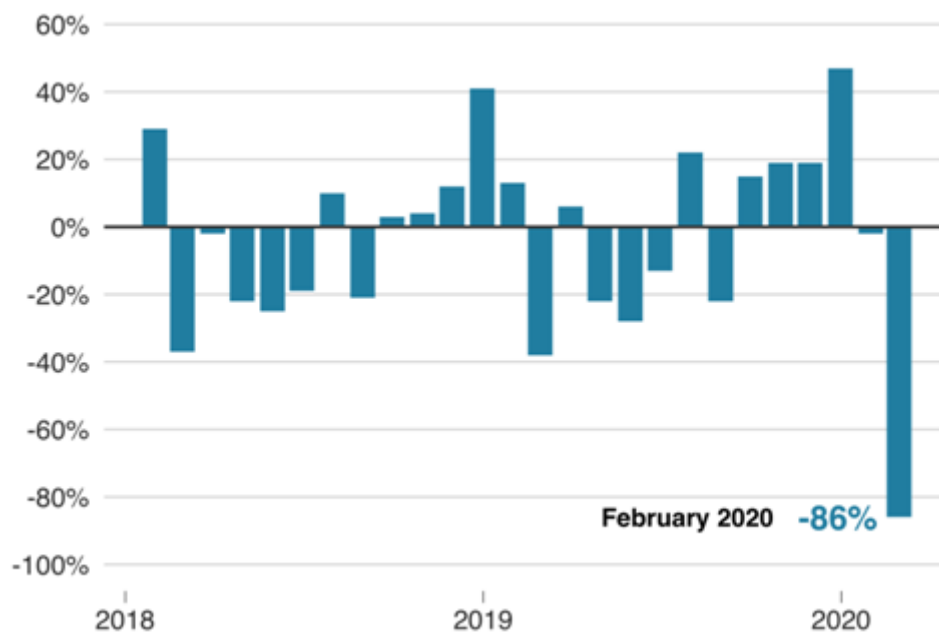


Figure – 4 : Car Sales in China
Source : China Passenger Car Association

The value of Gold is showing a rise and the price of oil is taking a plunge. Both these developments are an indication of the looming recession because people tend to buy more Gold and use less oil when they fear that a recession is coming.

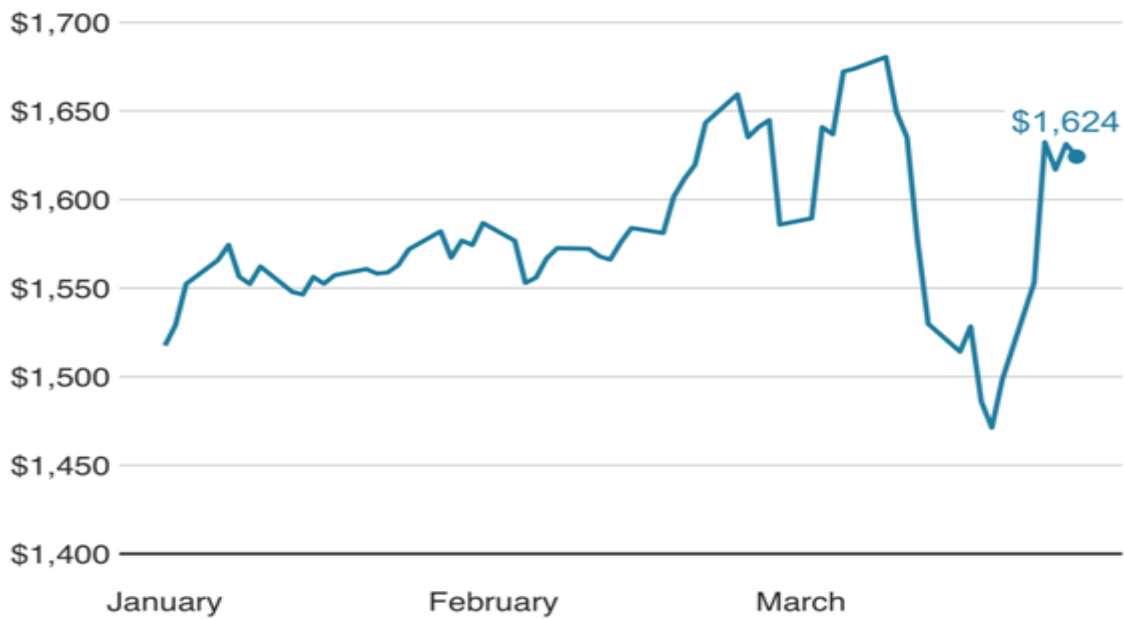


Figure – 5 : Fluctuating Prices of Gold
Source : Bloomberg



Figure – 6 : Falling Prices of Oil
Source : Bloomberg

India's fiscal deficit currently stands at 3.8% of GDP. The Government had targeted to bring down the fiscal deficit to 3.3%. But with the fiscal stimulus of Rs 1.7 Trillion (0.8% of GDP) announced by the Government to fight the Covid 19 Virus and the lockdown of 21 days, the fiscal deficit is now estimated to shoot upto 4.7% by next year. The USA Government has announced an economical package of \$2 Trillion to meet the crisis, and this is also going to widen the fiscal deficit of the country.

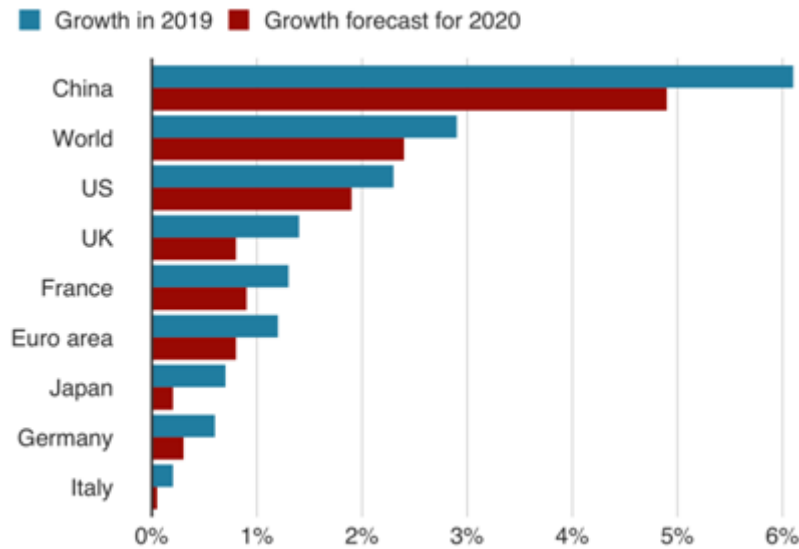


Figure – 7 : Growth Projections of OECD Countries
Source : OECD

3. LITERATURE REVIEW

There is no consistent definition of the term ‘Pandemic’. The Webster Dictionary defines Pandemic as “an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population: a pandemic outbreak of a disease”. A ‘Pandemic’ can be defined as Epidemiologic, which is synonymous with an influenza outbreak.

Pandemic is also thought to be associated with complications like pneumonia which can create an epidemic or even death. Some experts have opined that a pandemic is a combination of an epidemiologic and a virologic event. So, this can be “an antigenic shift of hemagglutinin of the prevailing influenza A viruses”. This can cause multiple waves of sickness in different geographic locations. (Schoenbaum, 2001).

The ‘Novel Corona Virus’ or the SARS-CoV-2 has infected 7,36,245 and killed 34,866 people (Source of Data: WHO) as on 30th March, 2020, 5 PM. “This has interrupted global trade and supply chains, depressing asset prices, and forced multinational businesses to make hard decisions with limited information.” (Ayittey, Ayittey, Chiwero, Kamasah, & Dzuovor, 2020).

Wuhan is a significant financial hub of China. It houses the production and research centers of top companies like Microsoft, SAP and Groupe PSA of France. China has faced a significant economic impact because of the Corona Virus Pandemic. Many airlines have cancelled their flights to and from China. Around 7,00,000 movie theatres have been closed down. China currently contributes to 16.3% of GDP and 39% of global economic growth (Source of Data: IMF).

China's economic growth

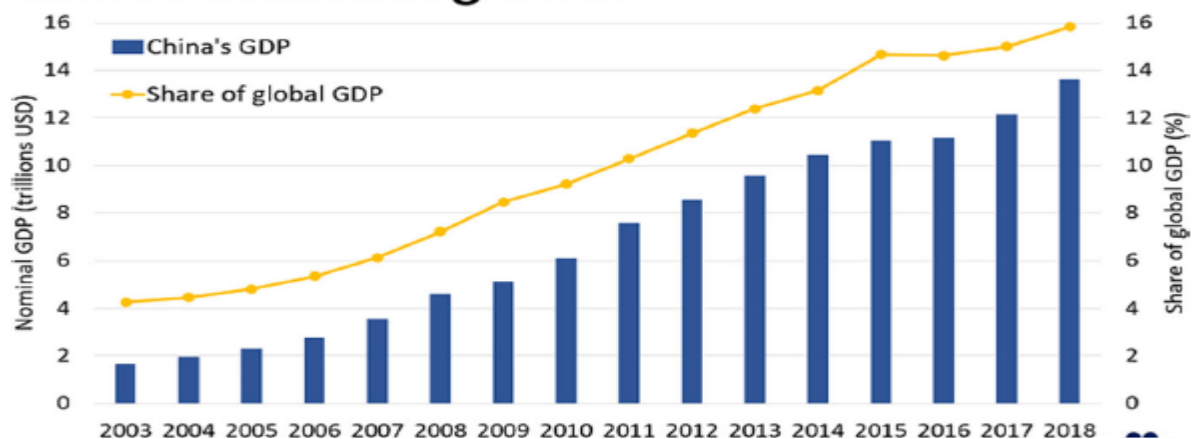


Figure-8: Growth of China’s GDP and it’s share in Global GDP.

Source: World Bank, OECD

It is estimated by World Bank that the pandemic caused by Corona Virus would wipe off 0.5% of Global GDP amounting to approximately \$300 billion.

Before the outbreak of this Novel Corona Covid 19 Virus, we had a similar deadly outbreak called SARS (Severe Acute Respiratory Syndrome). This originated in China and the Chinese Government was severely criticized for suppressing the information on the outbreak. This deadly virus had spread across the World causing a pandemic, infecting more than 8000 people and killing more than 800.

A critical inference from the SARS outbreak was to create a coordination process among the International bodies to pool in their resources to identify the priorities and resolve them. The WHO ascertained the norms which was later used to check the outbreak of the West African Ebola virus. Now we have organizations like “Global Outbreak Alert and Response Network (GOARN), the Coalition for Epidemic Preparedness Innovations (CEPI), the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R) and the Global Initiative on Sharing All Influenza Data (GISAID)” that are supported by WHO to prevent epidemics and outbreaks caused by deadly viruses.

The reason why leaders act late is because they might be criticized for over reaction. However, it is always better to over react and take preventive measures to prevent a virus outbreak rather than repent later. The early response can help to recognize the issues and break the cycle before it becomes an epidemic or a pandemic by releasing the pathogens in the air. The risk can then be assessed with proper reporting and modelling thus leading to a proper corrective action.[6]

Pandemics lead to lockdowns because of which there is restriction of free movement of goods and labour in the economy. A study titled ‘Economic Impact of Pandemic Influenza’ (Smith, R, Barnett, & Tait, 2009) found that the GDP could reduce by 0.5% to 4.3% resulting in reduction of UK output of between £8.4bn (€9.4bn; \$14bn) and £72.3bn.

4. DIGITAL MARKETING

“Digital marketing is defined as a marketing approach that primarily relies on the internet to connect with the target audience through various digital media channels and platforms” (Ryan & Jones, 2009). “Digital marketing uses strategies like SEO(Search Engine Optimization), SEM(Search Engine Marketing), SMM(Social Media Marketing), E-Mail Marketing, Mobile Marketing, Affiliate marketing and Web Analytics to understand the customer needs, get visibility in the market place, gain traffic to the webstore, engage the potential customers, get the leads and convert the leads into actual sales”.(Chahal & Chakraborti, 2018).

Digital Marketing has seen a rapid rise since the beginning of the new millennium. Companies like Amazon, Flipkart, Snapdeal, Paytm, Zomato, Swiggy, Ola, Uber and OYO have revolutionized the way customers search for products and services, compare between different brands and offers and finally make the buying decision. It has made the whole marketing process convenient with products and services available on a virtual platform from where they can be bought with the click of a button.

The payment process has also been made more simple with payment gateways and the marketers are also getting to reach customers across vast geographical areas. “In 2019, retail e-commerce sales worldwide amounted to 3.53 trillion US dollars and e-retail revenues are projected to grow to 6.54 trillion US dollars in 2022. Online shopping is one of the most popular online activities worldwide.” (Source of Data: Statista).

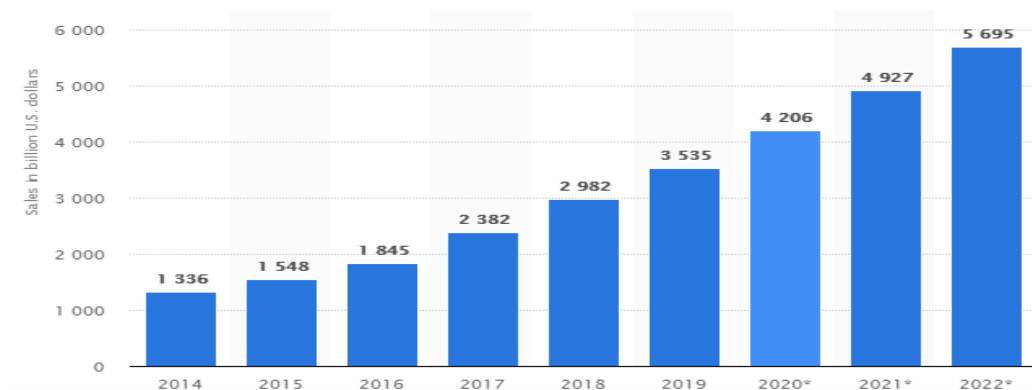


Figure -9: Global Retail E-Commerce Sales
Source: Statista

Digital Marketing offers the convenience of ‘Social Distancing’, which is becoming extremely important in the period of pandemic. The products can be ordered without actually going to the store and can be sanitized before receiving them from the delivery person. Companies are also working on a process of drone delivery so that the human contact can be minimized.

5. RESEARCH DESIGN

The research objective was to test whether digital marketing can be a viable option of business transaction during the period of pandemic. A pilot study was conducted on 100 residents in Mohali, who were incarcerated due to the lockdown and Section 144 imposed by the Punjab State. The hypothesis formed after pilot test of the data is:

H1: The Corona Virus Pandemic will cause a significant negative impact on the economic growth.

H2: Digital Marketing can be a significant medium of business transaction during the lockdown due to Corona Virus Pandemic

The data on Digital Marketing users were collected through E-mail and WhatsApp by using Google Forms. A sample of 100 customers based in Mohali were randomly selected from the total population of 9.95 lakh residents in the city. The sample size comprised of 50% males and 50% females. Out of the total respondents, 40% were in the age group 20-30 years, 20% were in the age group 30-40 years, 20% were in the age group 40-50 years and 20% were in the 50+ age group.

The survey instrument used for capturing the information is a structured questionnaire. The questionnaire was administered through E-mail and WhatsApp to 100 respondents – the residents of Mohali. The variables were measured using a 5 point Likert Scale ranging from Strongly Agree to Strongly Disagree.

The questionnaire comprises of three sections. The first section has been designed to capture the demographic data of the respondents. The second section has been designed to know the effect of Corona Virus Pandemic on their shopping habits. The third section comprises of scaled questions to understand whether digital marketing is accepted as a viable alternative during the Corona Virus Lockdown. . The data validation details are provided in Table I.

SPSS was utilized for investigation of essential information in the present study.

6. DATA ANALYSIS

Reliability Test

The reliability of the data has been tested through the Cronbach's Alpha test. The test specifies that values obtained higher than 0.70 is acceptable. In the test conducted by us, the variables were found to have value of more than 0.70. This indicates higher quantum of reliability of the data.

Table – I :
Cronbach Alpha's Reliability

Test Variable	Cronbach Alpha Score
Easy to Use	0.967
Available at any time	0.978
Saving of Time	0.846
Accessible from anywhere	0.878
Less Expensive	0.934

7. RESULTS AND DISCUSSION

The primary data was analyzed and found that 67% of the respondents have resorted to buying through digital channels and are finding the digital marketing easy to use. However, less than half (42%) have said that the products are reaching on time. This could be due to lockdown and travel restriction on delivery personnel. Many of the customers (73%) are agreeing that digital marketing is leading to saving of time. Many of the customers (69%) agree that they are able to order the products they need and getting good quality of products. Many of the customers (65%) agree that the products bought through digital marketing channels are cheaper in price.

For evaluating the following hypothesis, Structural Equation Modeling(SEM) was used:

H1: The Corona Virus Pandemic will cause a significant negative impact on the economic growth.

H2: Digital Marketing can be a significant medium of business transaction during the lockdown due to Corona Virus Pandemic

The summary of the hypothesis test is given in Table – II:

Table – II :
Test of Hypothesis

Hypothesis	Standardized Structural Coefficients	t-Statistics	p-Value
H1: Negative Impact on Economy	0.65	5.81	<0.01
H2: Rise in use of Digital Marketing	0.22	2.25	<0.01

The analysis of our data reveals that the spread of infections due to Corona Virus will have a significant negative impact on the economy (H1, $t=5.71$). However, there might not be a significant rise in the use of digital marketing during the pandemic period. (H2, $t= 0.67$)

We can sum up by saying that the situation looks grim without a clear forecast on how long this pandemic is going to sustain. We also do not know whether a vaccine will be available any time soon. The cases and death toll is mounting by the day with USA crossing more 1,00,000 cases and Italy recording more than 10,000 deaths.

As per our study, digital marketing is also not making a significant impact in creating an alternative platform for transacting the business. This is because there are problems in delivery due to the restricted movement of vehicles and personnel. Amazon, Flipkart and Big Basket has suspended the delivery of non essential products and are supplying only the essential items. There is also a concern on when the normal process of supply chain and order fulfillment by E-tailers and E0grocers will start.

8. LIMITATION

The limitation of the study is that we are still in the early stage of Corona Virus Pandemic and not sufficient data is available to determine the impact of this pandemic on business and final outcome. The data collected has been limited to a single city and the sample size is also

small to reach out to a final conclusion. The future scope lies in doing an extensive study with a large sample size to reach out to an unbiased conclusion.

9. CONCLUSION

To conclude, we can say that our research points out that there will be significant economic impact of the Novel Corona Virus on the Indian, Chinese and Global Economy. The significant impact could be in the form of fall in GDP growth, rise in fiscal deficit, rise in NPA (Non Performing Assets) in banks, loss of jobs and livelihood for many and deaths due to starvation.

With experts advocating ‘Social Distancing’ as a norm to avoid the community spread of Novel Corona Virus Covid 19, digital marketing could become a viable alternative to reach out to customers and gain competitive advantage in the market. However, for this to happen, the digital marketing companies must adopt innovative processes like 3D Printing and delivery through drones. Only then, we can successfully keep the business transactions going in the midst of this crisis and also restore normalcy in the economy.

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